

I CLAIM:

1 1. In a communications network deploying a first cache
2 between a user and a server, the improvement comprising:

3 the utilization of a second cache to aggregate user
4 requests and responses according to a protocol between said
5 first cache and an application server.

1 2. The improvement of Claim 1, including a proxy module for
2 checking whether a user request is already stored within said
3 separate cache.

1 3. The improvement of Claim 1 employing a protocol between
2 said user and server selected of any one of the group of HTTP,
3 RTSP, FTP, LDAP, SNMP and WAP.

1 4. The improvement of Claim 1 in an Internet Service
2 Provider Network employing a second cache to aggregate requests
3 and responses according to an Internet Content Adaptation
4 Protocol (ICAP), including means for transforming deployed non-
5 ICAP-enabled caches to an ICAP-enabled cache format.

1 5. The improvement of Claim 4 wherein said means includes
2 an HTTP adapter.

1 6. The improvement of Claim 4, including means for
2 transforming streaming caches to an ICAP-enabled streaming cache
3 format.

1 7. The improvement of Claim 4 wherein said means includes
2 an RTSP adapter.

1 8. The improvement of Claim 4, including means for
2 transforming deployed WAP caches to an ICAP-enabled WAP cache
3 format.

1 9. The improvement of Claim 8 wherein said means includes a
2 WAP adapter.

1 10. The improvement of Claim 4, including means for
2 transforming a non-ICAP-enabled application server to an ICAP-
3 enabled application server.

1 11. The improvement of Claim 1, including a rule engine
2 with an open interface for allowing third-party insertion of
3 rules governing responses to user requests.

1 12. The improvement of Claim 11 wherein said rule engine
2 allows dynamic insertion of rules based on the then desires of
3 application servers to the Internet.

1 13. The improvement of Claim 11, including means for
2 tracking individual user access patterns to the Internet.

1 14. The improvement of Claim 13 wherein said means also
2 allows dynamic insertion of rules based on such access patterns
3 of said user to provide profile-based services thereto.

1 15. The improvement of Claim 13, including a database of
2 information to provide location-based services to said user.

1 16. The improvement of Claim 4, also including means for
2 transforming deployed streaming caches to an ICAP-enabled
3 streaming cache format, and means for transforming deployed WAP
4 caches to an ICAP-enabled WAP cache format.

1 17. The improvement of Claim 4, including means for
2 transforming deployed non-ICAP enabled caches to an ICAP-enabled
3 cache format, means for transforming deployed streaming caches
4 to an ICAP-enabled streaming cache format, and means for
5 transforming deployed WAP caches to an ICAP-enabled WAP cache
6 format.

1 18. The improvement of Claim 4, including a rule engine
2 with an open interface for allowing third-party insertion of
3 rules governing responses to user requests.

1 19. The improvement of Claim 1, including an Application
2 Programming Interface (API) for third-party writing of
3 applications for the network.